

Amendments to the Specification:

Please replace paragraph [0016] with the following:

[0016] In order to introduce larger pores into polymers, and thus increase their porosity, several groups have prepared polymeric gels, such as RF gels, in liquid emulsions. The term "gel" means only that a process such as polymerization has occurred in a liquid mixture causing the mixture to become more viscous or, in some cases, to become a solid. Such RF gels usually have a mixture of pore sizes, and both the polymers and the carbons formed therefrom by pyrolysis are mostly macroporous (i.e., having diameters greater than 50 nm) rather than mesoporous (LeMay et al. 1990, Even and Gregory 1994). An alternative approach uses aerogels, which are gels dried by supercritical fluid processing. Supercritical fluid processing is known to minimize shrinkage and pore collapse on drying, but is a relatively expensive processing ~~technique~~ techniques.

Please replace paragraph [0041] with the following:

[0041] The specific surface area and the pore size distribution of carbons prepared in this manner were analyzed by nitrogen adsorption on a Micromeritics Gemini instrument. Figure 3 shows the nitrogen isotherm of one of the samples. The isotherm is a Type 4 that is characteristic for mesoporous solids (Gregg and Sing 1982). Figure 4 shows a distinct mesopore centered at 12 nm, as calculated by the BJH method (Barrett et al. 1951). Typically greater than 80% of the pore volume is in the mesopore range.

Table 1. Formulation and properties of TDA's RF porous carbons.

| Weight Ratio (water/resorcinol) | Mesopore Sizes (nm) | Total Pore Volume (cm ³ /g) | Mesopore Volume (cm ³ /g) | Total Surface Area (m ² /g) |
|------------------------------------|------------------------|--|---|---|
| 0.38 | 12 | 0.90 | 0.73 | 674 |
| 0.60 | 18 | 1.18 | 1.00 | 661 |
| 0.88 | 28 | 1.11 | 0.95 | 583 |

The properties of several RF derived carbons are shown in Table 1. If no excess water is added, carbons derived from these gels have low surface areas and no measurable mesopores. However, when excess water is added, the surface areas increase dramatically and the resulting carbons evidence mesopores. From this data, it is clear that the amount of excess water (i.e., water added in addition to that in the 37 weight percent formaldehyde solution) has a profound effect on the pore sizes. In fact, as shown in Figure 5, the mesopore size can be controlled in a very ~~predictable~~ predictable and linear manner simply by adjusting the excess water to resorcinol weight ratio.

Please replace paragraph [0046] with the following:

[0046] Irrespective of the exact mechanism of mesopore formation, in the preferred embodiments of the present invention, controlling the amount of additional water can be used to control the pore size in the resulting polymers and carbons. The preferred embodiments of the present invention therefore provide an inexpensive route to high surface area mesoporous polymers by avoiding the need for surfactants and for supercritical fluid extraction. However, nothing in the preferred embodiments of the present invention precludes the use of surfactants or supercritical fluid extraction and the present invention might also be practiced successfully using either or both of these. This technique also allows control over the pore size of the resultant carbon in the mesopore range, a result that has not been possible without the use of surfactants.